



September 16, 2010

Mr. Jarrett Gorin, AICP
Vanguard Planning LLC
735 State Street
Santa Barbara, CA 93101

RECEIVED
NOV 11 2010

CITY OF SANTA BARBARA
PLANNING DIVISION

RE: 1213 Harbor Hills Drive (MST 2009-00385); 30-Day Development Application Review Team Comments #2, (September 1, 2010) regarding the Biological Report.

Dear Jarrett,

The purpose of this letter/addendum is to provide the required additional information described on page 2, under IV. A. 4. (Biological Report) of the City of Santa Barbara's September 1, 2010 comment letter. The following issues were raised in this comment letter:

1. Change of parcel boundaries. The parcel footprint or boundary has changed since the biological report was completed in May, 2010. It is my understanding that the changed configuration to the parcel resulted from removing a small lot (#117) on the southwest side of the parcel and replacing it with a slightly larger sized lot (#119) to the southeast. All three figures contained in the original Biological Report are now *revised* (attached) to show the correct parcel boundary. The location(s) of physical development associated with the proposed project remains unchanged from the proposal evaluated in the original Biological Report. Changes in the parcel boundaries have no effect on potential project impacts to biological resources. Therefore, the findings and conclusions of the original Biological Report remain accurate for the current proposal.
2. Indicate the extent of the plant and animal survey. Section II of the Biological Report describes the extent of the survey. "A general survey of the site, consisting of a 50% walkover, was conducted by Rachel Tierney on March 9, 2010." And then later in that paragraph "The adjacent lots (119 and 120) were included in the survey."

Post Office Box 1113
Santa Barbara
California
93102

E-mail
rachel@vahoo.com

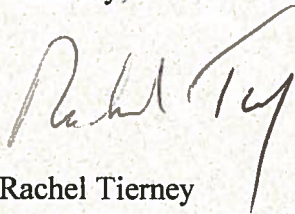
EXHIBIT H

In this report, a “50% walk over” means about half of the area was visually covered, enough to note ground-dwelling, or small annual species. “Site” refers to the entire parcel (and not just the building envelope - sorry for any confusion). The entire *current parcel configuration*, plus lots 117 and 120, was surveyed. Lot 125, the only other adjacent (off-site) lot, is highly disturbed and I found no reason to carefully view the weedy habitat.

3. Indicate the overall continuous area of coastal sage scrub and open space in the area. The *revised* Figure 2 now includes a larger area, encompassing the subject property and all surrounding open space and newly developed sites in this vicinity. Native vegetation is mapped throughout this area, showing the full extent of scrub in the open space.
4. Native Vegetation Fuel Management Plan. A Native Vegetation Fuel Management Plan, is provided in written and graphic form (Figure 3). A landscape architect is not yet part of the team. However, Zone 1 (the first 30 feet around the house) is located entirely outside of any native vegetation and although landscaping choices will be extremely important in this area, no native vegetation would be effected.

Please feel free to all if you need additional information.

Sincerely,



Rachel Tierney

Attachments: Figure 1: Site Plan and Vicinity Map; Figure 2: Aerial Photograph and Vegetation; Native Vegetation Fuel Management Plan and Figure 3: Fuel Management Zones.



LEGEND

- CSS California Sage Series/Coastal Sage Scrub
- CAGS California Annual Grassland Series/Weedy non-native grasses
- Subject Site

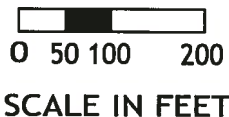


Figure 2 - Aerial Photograph & Vegetation

**1213 Harbor Hills Drive
Santa Barbara, CA**

09/16/2010



ADDENDUM: Native Vegetation Fuel Management Plan

1213 Harbor Hills Road, Santa Barbara CA

1.0 Introduction

The City of Santa Barbara, in conjunction with the City's Fire Department, will require a Landscape Plan designed to incorporate a minimum of 100 feet of fire resistant landscaping for new construction at 1213 Harbor Hills Road. The site is surrounded on two sides by open space, with vegetation mainly consisting of weedy grasses and coastal sage scrub dominated by California sagebrush (*Artemisia californica*), a particularly flammable native shrub. A landscape architect is not yet part of the project for 1213 Harbor Hills Road.

This Addendum bridges the Landscape Plan and the Biological Impact Analysis. The existing condition (current vegetation) in each of the four fuel modification zones is described. The required treatment in each zone is explained in terms of *landscape requirements* and in terms of the loss of native habits. The loss of habitat that would result from vegetation removal and /or fuel reduction or modification is further addressed in the Biological Resource Analysis. The Zone designations and clearance requirements conform to the City of Santa Barbara "High Fire Hazard Area Landscape Guidelines"

2.0 Purpose of Fuel Management

Defensible space refers to the zones or concentric bands of managed vegetation surrounding a residence that slows the movement and intensity of an oncoming fire. This is accomplished by reducing available fuel. Defensible space is created by fuel modification, or selective removal of vegetation. It is a reduction of flammable vegetation, designed so that a fire will run out of fuel as it approaches a residence or other structure. The creation of defensible space through fuel modification will reduce the risk of a fire spreading to a home and will enable firefighters to take a stand to protect a home if wildfires approach. Creating defensible space can be accomplished without "clearing" all native vegetation.

It is important to note that the native vegetation present in the region has evolved under a constant fire regime. It is adapted to, and in many cases flourishes with, periodic wildfire. Almost all of the chaparral and coastal scrub shrubs resprout from the base almost immediately following a burn that will eliminate all of the branches. Following the first season's rains, a blanket of native vine appears, providing natural erosion control that aids both soil conservation and vegetation re-establishment. Herbaceous annual and perennial plants will emerge in record numbers following a burn, when competition for light and moisture from established shrubs is at its ebb.

Some species only appear after a wildfire, presumably stimulated into germination by either the heat-induced physical breakdown of their hard seed coat, or by some chemical effect the charred plant remains have on dormancy. Although native trees such as the coast live oak may lose some of their leafy canopy to a wildfire, the active cambium layer, located under the bark of the trunk and all branches, can remain relatively unscathed and direct the growth of new leaves and shoots.

The only way to reduce both the intensity and the size of wildfire is to reduce the amount of fuel available to burn. This can be accomplished either by controlled burns or by selectively removing a portion of the vegetation through fuel modification. Both practices will reduce combustible material. Just as a wildfire is compatible with habitat preservation, fuel modification need not result in the complete removal of vegetation and loss of wildlife habitat value.

3.0 Fuel Management Zones, Treatments and Loss

This report anticipates four (4) vegetation management zones extending 100 feet vertically from all structures (following the City of Santa Barbara “High Fire Hazard Area Landscape Guidelines”)

- Zone 1 - 0 to 30 feet from structures
- Zone 2 - 30 to 70 feet from structures
- Zone 3 - 50 to 70 feet from structures
- Zone 4 - 70 to 100 feet from structures

Zone 1 0 to 30 feet from structures: Setback Zone

Irrigated Landscape. Vegetation within this zone is closest to the house and limited to moisture-retaining, irrigated ground covers not more than 12 inches in height or succulents, green lawns and a limited number of ornamental shrubs. Zone 1 shall remain free of non-irrigated woody vegetation (except for native oaks which should not be irrigated).

Trees may be located in this Zone if mature canopy is kept no closer than 15 feet from chimneys and does not overhang the roof of any structure or projection. Existing *native oaks* (larger than 4 inches DBH¹) located in Zone 1 shall be limbed up to one third of their height to a maximum of 6 feet. Smaller trees shall not be treated. Trees shall be kept clean of all litter under canopy.

Driveways. All vegetation (except for trees) shall be removed within 10 feet on either side of the driveways.

Existing Condition: *No California Sage Scrub falls within Zone 1.*

Treatment and/or Loss of Native Scrub: Only disturbed grassland lies within 30 feet of the proposed structures. No Loss of sensitive habitat.

¹ DBH = Diameter of trunk (or sum of trunks) measured at 4.5 feet above ground level.

Zone 2 30 to 50 feet from structures: Irrigated Open Zone

Zone 2 is also landscaped with low ground covers and succulents, though shrubs may be added. Shrubs are irrigated and can be *up to 3 feet tall*, placed in *clusters up to 10 feet in diameter* with a minimum of 18 feet between clusters. Trees can be planted individually, and not less than 30 feet apart. Do not plant shrubs under trees.

Existing Conditions: 1,320 sq. ft. of California Sage Scrub (plus weedy non-native grasses) fall within Zone 2.

Treatment and or Loss of Native Scrub: Remove existing scrub and landscape all of Zone 2.

Expected Loss of 1,320 sq. ft. of California Sage Scrub

Zone 3 50 to 70 feet from structures: Native and Mediterranean - Irrigated Zone

Zone 3 can be landscaped with low ground covers and succulents. Landscape similar to Zones 1 and 2. Shrubs may be introduced to the palette. All previous ground material should be treated in a similar fashion as described in Zone 1. Shrubs are irrigated and *no higher than 4 to 6 feet*. *Shrubs may be planted in clusters up to 18 feet in diameter* with a minimum of 18 feet between clusters. Some existing native scrub may remain if deadwood and undesirable species² are removed every three years. Roots should be left intact on all native plants that are cut. Plants may be chipped and left onsite. Native shrubs can also be planted if irrigated. Native Oak Trees, if present, shall be retained and remain non-irrigated. All trees shall be limbed up to one third of their height to a maximum of 6 feet. Smaller oak trees shall not be treated. Planted trees shall be spaced at least 30 feet apart to prevent crowns from touching. Do not plant shrubs under trees.

Existing condition: 1,930 sq. ft. of California Sage Scrub (plus weedy non-native grasses) fall within Zone 3.

Treatment: an overwhelming majority of the scrub onsite is made up of California sagebrush (*Artemisia californica*), an undesirable species to have close to any homes within high fire areas. Removal of the California sagebrush is recommended within the 100-foot treatment area. After the sagebrush and *Salvia* (another undesirable plant that's common on this site) is removed, the remaining native scrub is expected to be very sparse. A large cluster (one shrub?) of lemonadeberry is perched between Zones 2 and 3. This plant should remain.

Loss: Expected loss of 1,800 sq ft - 1,930 sq. ft.

² Undesirable native species found at this site are:

Artemisia californica (California sagebrush)

Baccharis pilularis (Coyotebrush)

Salvia mellifera (Black sage)

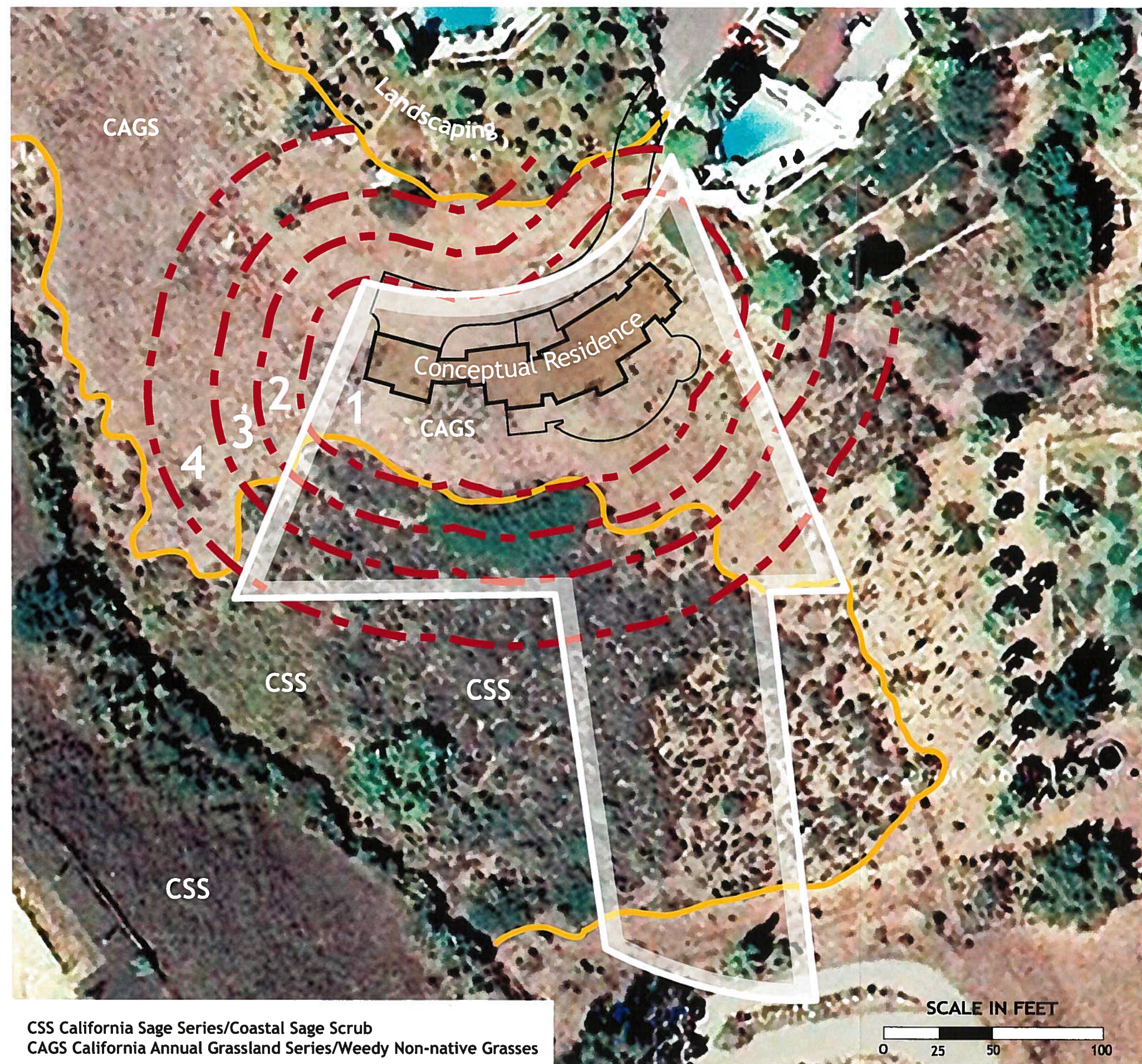
Zone 4 70 to 100 Feet Non-Irrigated Zone

Shrubs. No limit to shrub height. Plant in *clusters up to 18 feet in diameter*, with a minimum of 18 feet between clusters. **Native shrubs** can be retained or planted. **Native shrubs** must be selectively thinned, reducing available fuels by 50 to 70%. All deadwood shall be removed. The following species, present onsite, are considered more flammable than others and should be cut back (leaving root systems intact): *Artemisia californica* (California sagebrush), *Baccharis pilularis* (Coyotebrush), *Salvia mellifera* (Black sage). Treatment occurs every 3-5 years. **Trees** can be planted in groups at least 30 feet from other trees. Do not plant shrubs under trees.

Existing condition: 5,625 sq. ft. of California Sage Scrub (plus weedy non-native grasses) falls within Zone 4, predominantly California sagebrush.

Treatment of Scrub: Every 3 to 5 years, remove deadwood and up to a total of 50% cover (roots shall be left intact). *Or* landscape with native and other drought tolerant species.

Loss: 50% cover would result in 2,815 sq ft temporary loss of scrub, although habitat value need not be removed if area is thinned and not “mosaic” cut.



CSS California Sage Series/Coastal Sage Scrub
CAGS California Annual Grassland Series/Weedy Non-native Grasses

LEGEND

Four fuel management zones:

- Zone 1 - 0 to 30 feet from structures
- Zone 2 - 30 to 70 feet from structures
- Zone 3 - 50 to 70 feet from structures
- Zone 4 - 70 to 100 feet from structures

Zone 1 - 0 to 30 feet from structures: Setback Zone

Existing condition: No native scrub falls within Zone 1. Non-native grasses and broadleaf weeds. **Treatment:** All planted landscape vegetation within 30 feet of the residence and other structures shall be moisture retaining irrigated ground covers and succulents. Trees shall not be closer than 15 feet from structures. Zone 1 should remain free of non-irrigated, woody vegetation.

Zone 2 - 30 to 50 feet from structures: Irrigated Open Zone

Existing condition: 1,320 sq. ft. of California Sage Scrub plus weedy non-native grasses. **Treatment:** Landscaped with low ground covers and succulents. **Shrubs:** Up to 3 feet tall, clusters up to 10 feet in diameter with a minimum of 18 feet between clusters. **Trees:** 30 feet apart. Do not plant shrubs under tree canopy.

Zone 3 - 50 to 70 feet from structures: Native and Mediterranean - Irrigated Zone

Existing condition: 1,930 sq. ft. of California Sage Scrub plus weedy non-native grasses. **Treatment:** Landscape similar to Zones 1 and 2. **Shrubs:** Up to 6 feet, clusters up to 18 feet in diameter with a minimum of 18 feet between clusters. **Trees:** Plant at least 30 feet from other trees. Do not plant shrubs under tree canopy.

Zone 4 - 70 to 100 feet from structures: Non-Irrigated

Existing condition: 5,625 sq. ft.² of California Sage Scrub plus weedy non-native grasses. **Treatment:** No irrigation required. Landscaped with ground covers and shrubs as in Zones 1-3. **Shrubs:** No height limit. Plant in clusters up to 18 feet in diameter, with a minimum of 18 feet between clusters. Existing native scrub can remain, if thinned of deadwood and undesirable species¹, and kept in discreet clusters. **Trees:** can be planted in groups at least 30 feet from other trees. Do not plant shrubs under tree canopy.

¹ Undesirable native species found at this site are:

- Artemisia californica* (California sagebrush)
- Baccharis pilularis* (Coyotebrush)
- Salvia mellifera* (Black sage)

² Includes some scrub located on area outside of the property boundary but inside of Zone 4 and owned by the applicant.

Figure 3 - Fuel Mangement Zones

1213 Harbor Hills Drive
Santa Barbara , CA

09/16/2010

**RACHEL•
TIERNEY**



CONSULTING

**BIOLOGICAL ASSESSMENT
AND IMPACT ANALYSIS**

**1213 HARBOR HILLS DRIVE
SANTA BARBARA, CA 93109**

May 26, 2010

Post Office Box 1113
Santa Barbara
California
93102

TABLE OF CONTENTS

	Page
I. Summary of Findings and Conclusion	1
II. Introduction.....	1
Project Description	
Studies Performed	
Survey Dates and Personnel	
III Environmental Setting and Description of Biotic Resources.....	1
Plant Communities	
Wildlife	
Sensitive Resources	
IV. Project Impacts.....	10
V. Recommended Mitigation Measures.....	11
VI. Residual Impacts and Cumulative Effects	13
VII. References.....	14
 Table 1: Sensitive Plants in the Project Vicinity	 6
Table 2: Sensitive Wildlife in the Project Vicinity	9
 Figure 1: Site Plan and Vicinity Map	 2
Figure 2: Aerial Photograph and Vegetation.....	4
Figure 3: Approximate Fuel Modification Zones	12
 APPENDIX A: Photographs	

I. Summary of Findings and Conclusion

The site consists of highly disturbed non-native grassland and a small amount of remnant coastal sage scrub habitat. No sensitive plants or animals are known or expected. The current location of the proposed residence situated at the northern-most point of the property, and within the non-native grassland, would cluster the home against dense residential buildout along Harbor Hills Drive. Selective thinning in the outer fuel management zones would mitigate loss of native scrub habitat. Fuel management required in the current location of the house would affect the least amount of scrub compared to any other place on the property.

II. Introduction

The purpose of this report is to provide an assessment of biological resources of a proposed new residence, driveway and utilities at 1213 Harbor Hills Drive. A general survey of the site, consisting of a 50% walkover, was conducted by Rachel Tierney on March 9, 2010. Plants and animal signs were noted. Habitats, identified on an aerial photograph, were ground checked. Information on sensitive resources within the project area were gathered from a review of previous biological reports, the California Native Plant Society (Santa Barbara Quadrangle) and the Natural Diversity Data Base (Santa Barbara Quadrangle), a statewide computerized inventory of location information on rare species and communities (CDFG 2009, 2010; CNPS, 2010). The adjacent lots (119 and 120) were included in the survey (See Figure 1).

Plant community classification follows Sawyer and Keeler-Wolf (1995). Nomenclature for plants follows the Jepson Manual (Hickman 1993) and A Flora of the Santa Barbara Region (Smith, C. 1998), the latter used especially for common names. Nomenclature for wildlife follows Jennings (1987) for reptiles and amphibians, Baker et al. (2003) for mammals, and American Ornithologists' Union (1982) with its more recent supplements for birds.

III. Environmental Setting and Description of Biotic Resources

Characteristics of the Surrounding Area: The undeveloped site is located west of the terminus of Harbor Hills Drive in the Mesa neighborhood of Santa Barbara. The neighborhood, located north of Cliff Drive, is completely residential. Honda Valley Park further north (including Thornberry Park) forms a large continuous, forested open space, which runs almost to the ocean.

Characteristics of the Site: The subject property is on the eastern edge of a relatively large stretch of underdeveloped open space. With the exception of La Coronilla Park and Vic Trace Reservoir, this property is privately owned. While much of the habitat is disturbed, some remains in native scrub. The site also likely serves as an adjunct habitat to the larger Honda Valley corridor, which lies to the east.

PLANT COMMUNITIES

The site is situated on a south-facing slope, and is vegetated with two plant communities: California Annual Grassland Series (on this site represented by non-native grass and many exotic weeds) and California sage scrub.

California Annual Grassland Series

A disturbed weedy non-native grassland is established on the upper slope of the site (See Figure 2). However, the majority of the species consists of exotic weeds, namely cheeseweed (*Malva parviflora*) and Russian thistle (*Salsola tragus*).

Common European grasses seen onsite include: ripgut (*Bromus diandrus*), slender wild oats (*Avena barbata*) and glaucous barley (*Hordeum glaucum*). Non-native weeds found in abundance are: Whitestem and redstem filaree (*Erodium moschatum*, *E. cicutarium*), black mustard (*Brassica nigra*), wild radish (*Raphanus sativa*), milk thistle (*Silybum marianum*) and sweet yellow clover (*Melilotus officinalis*). The only native species seen within the ruderals was arroyo lupine (*Lupinus succulentus*).

California Sage Series

The lower portion of the subject parcel is vegetated with a fairly heavy cover of scrub. The community consists of California sagebrush (*Artemisia californica*), which dominates, along with lemonadeberry (*Rhus integrifolia*), toyon (*Heteromeles arbutifolia*) and coyotebrush (*Baccharis pilularis*). Very little understory is present, except for occasional non-native grasses.

To the east of the subject property (within Lot 119 and 120), scrub cover is lower and appears to be recovering from a past clearing. Off-site and to the west of the subject property, scrub vegetation runs to the small ephemeral drainage. The drainage shows just a faint sign of a bed, a bank and no sign of any riparian vegetation. The steep slope leading down to the invert from both sides are deeply eroded and invasive species are prevalent due to the continually disturbed soils.



LEGEND

CSS (California Sage Series)

CAGS (California Annual Grassland Series)

Figure 2 - Aerial Photograph & Vegetation

**1213 Harbor Hills Drive
Santa Barbara, CA**

RACHEL
TIERNEY



CONSULTING

05/26/2010



0 25 50 100
SCALE IN FEET

WILDLIFE

Despite the current condition of the surrounding area (high-density residential development), the project area continues to support moderate- to high-quality wildlife habitat. Common amphibians and reptiles expected to inhabit the project area include: western toad, western fence lizard, southern alligator lizard, gopher snake and common kingsnake.

Common resident and migratory birds include: red-tailed hawk, red-shouldered hawk, turkey vulture, American kestrel, northern flicker, downy woodpecker, acorn woodpecker, American crow, Anna's hummingbird, bushtit, Lawrence's goldfinch, scrub jay, Cassin's kingbird, northern mockingbird, northern oriole, black phoebe, greater roadrunner, American robin, violet-green swallow, California thrasher, plain titmouse, California towhee, spotted towhee, common yellowthroat, yellow-rumped warbler, yellow warbler, cedar waxwing, Bewick's wren, wrentit, golden-crowned sparrow, white-crowned sparrow, house finch, song sparrow and cliff swallow.

Common mammals expected in the project area include: opossum, broad-handed mole, pocket gopher, deer mouse, Botta's pocket gopher, dusky-footed woodrat, raccoon, striped skunk, bobcat, feral domestic cat and coyote. The active red fox den noted during a survey in 2003 was not seen at this time.

SENSITIVE RESOURCES

Sensitive Plants

No species listed or proposed for listing under federal or state agencies are expected onsite, nor were they found during the survey conducted for this site (CDFG, 2009, CDFG 2010, CNPS, 2010).

Two sensitive plants are known locally, Plummer's baccharis (*Baccharis plummerae* ssp. *plummerae*) and Santa Barbara honeysuckle (*Lonicera subspicata* var. *subspicata*). Both species can be identified at any time of year and neither were found during the survey.

- Plummer's baccharis (*Baccharis plummerae*) has a moderate potential to occur along the ravine slopes. This species is closely related to coyotebrush, a common scrub shrub. The trailing shrub has been found at the base of the oak woodland on the Douglas Family Preserve, Mission Canyon and other shaded spots (author pers. obs.). It is on the California Native Plant Society's List 4 (a watch list).
- Santa Barbara honeysuckle (*Lonicera subspicata* var. *subspicata*) has a high potential for occurrence. It is common in many habitats in coastal Santa Barbara County. Although typically seen under oaks, it also occurs within scrub.

TABLE 1: SENSITIVE PLANTS IN THE PROJECT VICINITY

Scientific Common	Life Form	Blooming	Communities	Elevation	CNPS
<u>Atriplex coulteri</u> Coulter's Saltbush	perennial herb	Mar-Oct	<ul style="list-style-type: none"> •Coastal bluff scrub (CBScr) •Coastal dunes (CoDns) •Coastal scrub (CoScr) •Valley and foothill grassland (VFGrs)/alkaline or clay 	3 - 460 m.	List 1B.2
<u>Atriplex serenana</u> var. <u>davidsonii</u> Davidson's saltscale	annual herb	Apr-Oct	<ul style="list-style-type: none"> •Coastal bluff scrub (CBScr) •Coastal scrub (CoScr)/alkaline 	10 - 200 m.	List 1B.2
<u>Baccharis</u> <u>plummerae</u> ssp. <u>plummerae</u> Plummer's baccharis	perennial deciduous shrub	May-Oct	<ul style="list-style-type: none"> •Broadleafed upland forest •Chaparral (Chprl) •Cismontane woodland (CmWld) 	5-425 m.	List 4.2
<u>Calochortus</u> <u>plummerae</u> Plummer's mariposa lily	perennial bulbiferous herb	May-Jul	<ul style="list-style-type: none"> •Chaparral (Chprl) •Cismontane woodland (CmWld) •Coastal scrub (CoScr) •Lower montane coniferous forest •Valley and foothill grassland 	100 - 1700 m.	List 1B.2

California Native Plant Society (CNPS) Listings and Rank

List 1A: Plant Presumed Extinct in California

List 1B: Plants Rare, Threatened or Endangered in California or Elsewhere

List 2: Plants Rare in California but More Common Elsewhere

List 3: Plants About Which More Information is Needed - A Review List

Threat Code extensions and their meanings:

- .1 - Seriously endangered in California
(over 80% of occurrences threatened / high degree and immediacy of threat)
- .2 - Fairly endangered in California (20-80% occurrences threatened)
- .3 - Not very endangered in California (<20% of occurrences threatened or no current threats known)

Scientific Common	Life Form	Blooming	Communities	Elevation	CNPS*
<u>Hordeum</u> <u>intercedens</u> vernal barley	annual herb	Mar-Jun	•Coastal dunes (CoDns) •Coastal scrub (CoScr) •Valley and foothill grassland •Vernal pools (VnPIs)	5 - 1000 m.	List 3.2
<u>Horkelia cuneata</u> <u>ssp. puberula</u> mesa horkelia	perennial herb	Feb-Jul(Sep) Months in parentheses are uncommon.	•Chaparral (Chprl)(maritime) •Cismontane woodland (CmWld) •Coastal scrub (CoScr)/sandy or gravelly	70 - 810 m.	List 1B.1
<u>Lasthenia glabrata</u> <u>ssp. coulteri</u> Coulter's goldfield	annual herb	Feb-Jun	•Marshes and swamps (MshSw)(coastal salt) •Playas (Plyas) •Vernal pools (VnPIs)	1 - 1220 m.	List 1B.1
<u>Lonicera</u> <u>subspicata</u> var. <u>subspicata</u> Santa Barbara honeysuckle	perennial evergreen shrub	May-Aug (Dec-Feb) Months in parentheses are uncommon.	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Coastal scrub (CoScr)	35 - 1000 m.	List 1B.2
<u>Ribes amarum</u> var. <u>hoffmannii</u> Hoffmann's bitter gooseberry	perennial deciduous shrub	Mar-Apr	•Chaparral (Chprl) •Riparian woodland (RpWld)	150 - 1190 m.	List 3

***California Native Plant Society (CNPS) Listings and Rank**

List 1A: Plant Presumed Extinct in California

List 1B: Plants Rare, Threatened or Endangered in California or Elsewhere

List 2: Plants Rare in California but More Common Elsewhere

List 3: Plants About Which More Information is Needed - A Review List

Threat Code extensions and their meanings:

- .1 - Seriously endangered in California
(over 80% of occurrences threatened / high degree and immediacy of threat)
- .2 - Fairly endangered in California (20-80% occurrences threatened)
- .3 - Not very endangered in California (<20% of occurrences threatened or no current threats known)

Sensitive Animals

There are no listed or proposed species under either the State or Federal Endangered Species Act expected in the vicinity of the site (CDFG 2009). A complete list of potentially occurring sensitive animals is included in Table 2, below. Several animals considered either federal (FSC) or state (CSC) "Species of Concern" are known from the area:

- Legless lizard (CSC, FSC) and coast horned lizard (CSC, FSC) are known to inhabit the project area and may inhabit the scrub community onsite. They are considered either federal (FSC) or state (CSC) "Species of Concern."
- Several sensitive avian species known from the area may forage at the site, although they would not likely choose to nest due to lack of suitable riparian woodland habitat. These birds include: northern harrier (nesting: CSC), white-tailed kite (nesting: DFG Fully protected), cooper's hawk (nesting: CSC), sharp-shinned hawk (nesting, CSC) and common yellow throat (Local Concern).
- Monarch butterfly roosting sites: The property is situated about .65 miles from each of two known monarch butterfly roosting sites: La Mesa to the southwest and Honda Valley to the northeast. The La Mesa site is in a small park east of Lighthouse Creek. It was degraded in the late 1990's when several large eucalyptus trees were removed (Althouse and Meade, 1999). The Honda Valley site is located near City College.

Sensitive Habitats

Drainage (OFF SITE): No riparian species were found along the drainage. Although not containing "sensitive vegetation" or sensitive habitat," any disturbance to drainages that carry even seasonal flows would likely fall under the jurisdiction of the Corps of Engineers pursuant to the Clean Water Act and would require "401" permit. *This feature is offsite and no disturbance is anticipated.*

California Sage Scrub: Coastal sage scrub is considered sensitive habitat in some southern communities due to the presence of the federally-listed (threatened) California gnatcatcher. A total of 197,307 acres are designated "critical habitat" in San Diego, Riverside, San Bernardino, Orange, Los Angeles and Ventura Counties. The northern-most population is in Moorpark, Ventura County. California gnatcatchers are not known from Santa Barbara County. Coastal sage scrub, or California sage series, as it is called under the classification system used in this report, is not identified as a "sensitive habitat" by any State or Federal regulating authority. However, the rapid loss of sage scrub due to coastal development has brought about the preservation and protection of intact, large stands *whenever possible* within some jurisdictions.

TABLE 2: SENSITIVE WILDLIFE IN THE PROJECT VICINITY

SPECIES AND STATUS	HABITAT AND POSSIBLE IMPACTS
INVERTEBRATES	
Monarch Butterfly (<i>Danaus plexippus</i>) Status: CSC	Althouse and Meade (1999) identify two monarch habitat sites approx. 0.65 miles from the site: including La Mesa and Honda Valley. No impacts to these sites are expected.
REPTILES	
Silvery Legless lizard (<i>Anniella pulchra pulchra</i>) Status: CSC, FSC	Silvery legless lizards are known from many habitats. They require soils with high sand content and usually leaf litter. The closed <i>recorded</i> site is at More Mesa (Tierney, 2008). Soils at the subject property (Arnold loamy sand) would contain over 65% sand ?enough sand, although the leaf litter may be sparse in the scrub. They are not expected to burrow within the disturbed grassland.
BIRDS	
Cooper's Hawk (<i>Accipiter cooperi</i>) Status: California Watch List; Local Concern (nesting sites).	Nests in riparian woodlands but may forage onsite during non-breeding months. Not expected to nest onsite.
Sharp-shinned Hawk (<i>Accipiter striatus</i>) Status: CA Watch List; Local Concern (nesting sites).	Uses the same habitat as Cooper's hawk for nesting. Expected to forage over wooded habitat during the fall and winter months. Not expected to nest onsite.
Northern harrier (<i>Circus cyaneus</i>) Status: FSC (nesting)	Known to breed on Vandenberg Air Force Base (12 Pairs) and San Miguel Island. May forage onsite during non-breeding months. Not expected to nest onsite.
White-tailed Kite (<i>Elanus leucurus</i>) Status: CA fully protected (nesting)	Uses tall riparian trees adjacent to large grasslands for breeding. May forage onsite during non-breeding months. Not expected to nest onsite.
Warbling Vireo (<i>Vireo gilvus</i>) Status: Local concern	Uses oak-riparian habitat for nesting. During migration, warbling vireos are expected to forage in brushy and wooded habitat. Not expected to nest onsite.
Yellow Warbler (<i>Dendroica petechia</i>) Status: CSC	During migration, yellow warblers are expected to forage in brushy and wooded habitats. Not expected to nest onsite.
MAMMALS	
Pallid Bat (<i>Antrozous pallidus</i>) Status: CSC	Occurs in many habitats, including grassland and shrubland. May occasionally roost and/or forage on site.

CSC = California Species of Concern

FSC = Federal Species of Concern

IV. Project Impacts

The following discussion of potential impacts to biological resources was determined based on the site map contained in this report. Impacts are designated: adverse, significant and non-mitigable; adverse, significant and mitigable; or adverse and not significant following the guidelines established under CEQA. Although the removal of any natural or naturalized vegetation results in a decrease of resources available to wildlife, a determination of significance is required under CEQA. The California Environmental Quality Act Statutes and Guidelines identifies “significant” as meaning *substantial or potentially substantial* (State of California, 1986).

1. Loss of California Sage Scrub Habitat due to Fuel Management

Fuel Management, the process of selectively removing a portion of the vegetation to reduce combustible material, is typically required by State law and City policy in areas with high fuel loads. Treatment of vegetation would extend 100 feet from structures, into the disturbed grassland and California sage scrub. Figure 3 illustrates the proposed footprint of 1213 Harbor Hills Drive and the expected reach of fuel management into the existing habitat.

About 8,875 sq. ft. (or 0.20 acres) of California sage scrub (from a total of 36,250 sq. ft. [or 0.83 acres] remaining onsite) would fall within the 100-foot wide fuel management treatment zone. Following the strict guidelines of CEQA, a ruling of significance may be difficult to arrive at for this loss, given that this plant community is *not* identified as “sensitive” by Federal, State or City policy. However, mitigation is given below, because it is easily accomplished and because it makes good sense for land stewardship.

- **IMPACT 1: Loss of California Sage Scrub due to fuel management is considered adverse, significant and mitigable.**

2. Temporary Direct and Indirect Disturbance to Fauna

(Including breeding avifauna)

Direct impacts (such as ground disturbance) and indirect impacts (such as noise and increased human activity in the project area) may interfere with breeding activity of sensitive birds and other animals. For birds, construction activity during the breeding season could disturb mating pairs and cause them to abandon the area. Nesting birds may leave their clutch if noise and human intrusion is severe.

Raptors and possibly other sensitive birds may forage onsite in non-breeding months. However, sensitive avifauna are not expected to nest within the project site. Birds that may nest onsite would be common to this area and elsewhere.

No sensitive animals are known from the site. Any sensitive species that may occur would be found within the scrub, and not within the disturbed grassland, where all construction is proposed. Other animals that may frequent or breed on site are expected to be common to the area.

- **IMPACT 2: Temporary direct and indirect disturbance to fauna is considered an adverse but less than significant impact.**

V. Recommended Mitigation Measures

MITIGATION MEASURE 1: Loss of California Sage Scrub due to fuel management:

The following mitigation measures outlines the basic strategies for an environmentally sensitive vegetation management approach. If done correctly, fuel management can be compatible with habitat protection. Although 100 feet from all structures is the area that required management, this does not mean complete vegetation removal. The outer portions of the managed circle can retain native vegetation as long as a few principles are followed.

Vegetation around a home is typically treated in three different zones:

Zone A - Closest to the house and other structures (30 feet wide), from 0 to 30 feet away from all structures.

Zone B - (40 feet wide) from 30 to 70 feet from structures;

Zone C - furthest from the house (30 feet wide), from 70 to 100 feet from structures.

These three zones are depicted on Figure 3. The treatments for each zone are explained below. This includes what can be accomplished in each zone to maintain a fire-safe environment for the home, while still allowing the retention of habitat value. The specific application for this site is included.

Zone A should remain free of non-irrigated, woody vegetation. All vegetation within 30 feet of the residence and other structures shall be moisture retaining irrigated groundcover, shrubs, and/or trees.

Existing condition: *No scrub falls within Zone A.* Only disturbed grassland lies within 30 feet of the proposed structures.



0 25 50 100
SCALE IN FEET



LEGEND

Fuel Management Zones

Zone A: 0'-30' From Structures

Zone B: 30'-70' From Structures

Zone C: 70'-100' From Structures

CSS (California Sage Series)

CAGS (California Annual Grassland Series)

Figure 3 - Fuel Management Zones

1213 Harbor Hills Drive
Santa Barbara, CA

05/26/2010

RACHEL
TIERNEY



Zone B is landscaped with fire resistant, drought tolerant, irrigated plants. Grasses and groundcovers are maintained at no more than 18 inches in height on slopes that require erosion control measures. Grasses are mowed elsewhere. Existing native shrubs shall remain in the **outer half** of the zone, as long as they are at least 15 feet apart. Remove non-irrigated ladder fuels and deadwood annually.

Existing condition: 3,250 sq. ft. of California Sage Scrub falls within Zone B
Treatment of Scrub: Landscape inner half of Zone B. Leave native scrub in outer half (20 feet), thinned to 15-foot centers. Roots shall be left intact.

Zone C Vegetation remains and is treated every 3 to 5 years to removed about 50% of all material, including deadwood.

Existing condition: 5,625 sq. ft. of California Sage Scrub falls within Zone C.
Treatment of Scrub: Every 3 to 5 years, remove deadwood and up to a total of 50% cover. Roots shall be left intact.

VI. Residual Impacts and Cumulative Effects

RESIDUAL IMPACT 1: Loss of California sage scrub due to fuel management: **Less than significant.**

Retention of scrub vegetation within Zone C and retention of some shrubs in the outer portions of Zone B would maintain as much of the scrub habitat as possible, while still allowing reasonable development.

If the house were relocated into another area within the site that would require a greater loss of California coastal scrub, the effect of fuel management on native vegetation would need revisiting.

CUMULATIVE EFFECTS: Infill of this patch of undeveloped land within the Mesa was inevitable, and loss of habitat equals loss of resources. However, the presence of *large* tracts of permanent open space located in the Mesa neighborhood (Honda Valley, Ellings Park and the Douglas Family Preserve) mitigates the negative affects of each small but incremental loss of private, undeveloped property.

VII. References

Althouse and Meade. 1999. Monarch Butterfly Overwintering Sites in Santa Barbara County California. Prepared for the County of Santa Barbara.

American Ornithologists' Union. 1982. Thirty-fourth Supplement to the American Ornithologists' Union Checklist of North American Birds. Supplement to the Auk. 99(3): 1CC-16CC.

Baker, J. R., L. C. Bradley, R. D. Bradley, J. W. Dragoo, M. D. Engstrom, R. S. Hoffmann, C. A. Jones, F. Reid, D. W. Rice, and C. Jones. 2003. Revised Checklist of North American Mammals North of Mexico, 2003. Occ. Papers Mus. Texas Tech. Univ., 229:1-23.

California Department of Fish and Game. 2010. Special Lists: Plants, Animals, and Natural Communities. Available at the CDFG web site.
<http://www.dfg.ca.gov/whdab/html/lists.html>

_____. 2009. Biogeographic Data Branch, California Natural Diversity Databasc. Santa Barbara Quadrangles.

_____. 2003 The Vegetation Classification and Mapping Program. List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database. September 2003 Edition.

California Native Plant Society. 2010 Inventory of Rare and Endangered Vascular Plants of California. Available at the CNPS web site.
www.cnps.org/rareplants/inventory/6thEdition.htm

California, State of. 1986. CEQA: California Environmental Quality Act. Statutes and Guidelines 1986. Office of Planning and Research, Sacramento

Hickman, J. 1993. The Jepson Manual; Higher Plants of California. University of California Press, Berkeley and Los Angeles.

Holland, R. 2004 Preliminary Description of the Terrestrial Natural Communities of California. Nongame Heritage Program, California Department of Fish and Game, Sacramento, California.

Jennings, M. R. 1987. Annotated Checklist of the Amphibians and Reptiles of California. Special Publication No. 3. Southwestern Herpetologists Society, Van Nuys, CA. 48 pp.

Sawyer, J. and T. Keeler-Wolf. 1995. A Manual of California Vegetation. California Native Plant Society Publication.

Smith, C. 1998. A Flora of the Santa Barbara Region, California. Santa Barbara Museum of Natural History.

Stebbins, R. C. 1985. A Field Guide to Western Reptiles and Amphibians. 2nd ed., Houghton-Mifflin Co., Boston.

APPENDIX:

SENSITIVE ANIMAL SPECIES KNOWN FROM THE PROJECT AREA

The **monarch butterfly** (wintering sites only) (*Danaus plexippus*) is a California Species of Special Concern. It forms large, highly disjunct overwintering aggregations in eucalyptus groves. Locally, minor autumnal aggregations are known from eucalyptus stands in Honda Valley, north of the project area, La Mesa Park and the Douglas Family Preserve, west of the project area (Althouse and Meade, 1999).

The **silvery legless lizard** (*Anniella pulchra pulchra*) is a California Species of Special Concern that has a broad regional distribution, but is discontinuously distributed because of its requirement of loose soils with a high sand content, and scrub or woodland vegetation (Hunt, 1997). This species is undoubtedly more abundant in the Santa Barbara area than the handful of specimen records would indicate. Most of the records for this area are concentrated in San Andreas fine sandy loam and Tierra sandy loam soils (Shipman et al, 1981), which occur along the eastern and southern portions of Hope Ranch, portions of the project area, and the northern and southern portions of Las Positas Friendship Park and Rancho Las Positas (Jesuit Property), respectively. Soils within the subject area are primarily Ayar clay. If present in the project area, this species may be expected to occur in lenses of sandy soils and within scrub debris.

The **coast patch-nosed snake** (*Salvadora hexalepis virgulata*) is a California Species of Special Concern that occurs in open grassland, coastal sage scrub and open chaparral habitats. Its natural history is poorly known, but it appears to be a specialized predator of whiptail lizards (genus *Cnemidophorus*) (Jennings and Hayes, 1994). The local distribution of this snake in southern Santa Barbara County reflects that of its preferred prey. Its apparent regional absence from the coastal portions of southern and western Santa Barbara County may be attributable to persistent coastal convection fog during the spring and summer months, which make it climatically unsuitable for both this snake and its lizard prey (Hunt, pers. obs.). Consequently, despite the presence of suitable habitat on-site, this species is unlikely to occur in the project area.

The **Cooper's hawk** (*Accipiter cooperi*) is a California Species of Special Concern. This wide-ranging raptor is typically associated with oak woodlands and riparian woodlands. It is uncommon to common transient and winter visitor. Formerly more abundant as a breeding species, it is now a very uncommon to rare breeder in the Santa Barbara area due to habitat loss (Lehman, 1994). Riparian trees are not located within the project site. However, hawks may use the area for foraging.

The **sharp-shinned hawk** (*Accipiter striatus*) is a California Species of Special Concern. It is discontinuously distributed as a resident species over most of the United States. It more

commonly occurs as a winter visitor to semi-open and wooded habitats. Locally, it is considered an uncommon to fairly common transient and winter visitor, where it is typically associated with riparian and oak woodland habitats (Lehman, 1994). This species has not been observed in the project area, but may be expected to forage and roost in the riparian corridor of Arroyo Burro Creek and may occasionally frequent the site.

The **northern harrier** (*Circus cyaneus*) is a California Species of Special Concern that has a broad continental distribution, but is an uncommon fall transient and winter visitor to the south coast of Santa Barbara County (Lehman, 1994). It typically forages and nests in grasslands and open scrub habitats and freshwater and salt marshes. One or two harriers were observed foraging over Elings Park and the Jesuit Property in 1997 and 1998 (Tierney and Hunt, 2000) and may occasionally frequent the site.

The **white-tailed kite** (*Elanus leucurus*) is a California Species of Special Concern and a Santa Barbara Species of Local Concern (according to Biological Protection Measures in the Santa Barbara County General Plan). Although widely distributed along the Pacific Coast in grasslands, marshlands and agricultural areas, this species experiences dramatic population fluctuations that are attributable to similar year-to-year variation in population densities of its preferred prey, the California vole (*Microtus californicus*). White-tailed kites are considered to be an uncommon resident and local summer breeder along coastal southern Santa Barbara County. Population persistence is strongly associated with the presence of suitable communal roost and nest sites, which are used year after year. Locally, they nest in eucalyptus, oak and riparian woodlands. Kites have been observed foraging over open grassland and scrub habitats in the project area (Hunt, pers. obs.).

The **loggerhead shrike** (*Lanius ludovicianus*) is a California Species of Special Concern that is widely distributed across arid and semi-arid lands of the western United States, but has experienced significant declines in California, especially central and southern California, because of loss of grassland, oak savannah, and coastal sage scrub habitat. It is an uncommon resident and rare breeder along coastal southern Santa Barbara County (Lehman, 1994).

The **pallid bat** (*Antrozous pallidus*) is a California Species of Special Concern that is widely distributed over mesic lowlands and canyonlands throughout much of western North America (Ingles, 1965; Hall, 1981). It regularly forages over grassland and open scrub habitats where it feeds on Jerusalem crickets, scorpions, and other large, nocturnal arthropods (Ross, 1967; Brown, 1980). This species has been found regularly along the south coast of Santa Barbara and Ventura counties (e.g., Vandenberg Air Force Base) (Collins, 1998) and the lower Ventura River floodplain (Hunt and Lehman, 1992). Based on its wide foraging habits, its regional distribution, and the presence of suitable foraging habitat, pallid bats may be expected to occasionally forage over the project site.

The **San Diego desert woodrat** (*Neotoma lepida intermedia*) is distributed in rocky scrub habitats along the coastal slope of the Coast and Transverse Ranges from San Luis Obispo County southward through northwestern Baja California Norte, Mexico (Hall, 1981). Locally it occurs in coastal sage scrub and chaparral habitats with an abundance of rock outcrops. Recent

observations and collecting indicates that this species is widely distributed along the south slope of the Santa Ynez Mountains (Hunt and Lehman, 1992; Collins, 1993). The project area contains suitable coastal sage scrub habitat for this species, but rocky substrates are generally lacking.